

长征计划 LONG MARCH PROJECT

Planet Marx Reading Club Meeting #1

How Does Planet Earth Become A Sensor?

On 21st March, Long March Project (LMP) hosted the first of a series of Planet Marx Reading Club meetings at Long March Space. The session was titled “How Does Planet Earth Become a Sensor”, and artist Zhao Yao, Tsinghua Tongheng Urban Planning and Design Institute researcher Wang Yijia, and LMP researcher Zian Chen introduced selected texts.

Planet Marx Reading Club is particularly concerned with the intersections of disparate fields and subjects where complex issues often arise. In this discussion, we talked about the coalescence of politics and technology, the convergence of biology and technology. The author out of our selected texts that spurred the most debate and discussion was Benjamin Bratton whose text looks at science fiction, biotechnology, and artificial intelligence in an uninhibited and imaginative manner that is inspirational. What we aspire to do is compare and explore these interconnections between different subjects and disciplines that we feel are relevant to contemporary culture: we shall read from celestial phenomena to geological change, from urban landscape to digital space. At every one of these confluences where one subject meets another, links as well as contradictions surface, impelling us to reflect upon our own temporality.

Following is a brief summary of the session.



Planet Marx Reading Club meeting #1: How Does Planet Earth Become a Sensor?

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Zian Chen: Yu Guangyuan's Implementation of a Technosphere

Sharing his thoughts on Yu Guangyuan, "The Smallness of the Earth and the Largeness of the Earth", in *A Philosophical School is Rising in China*, 1996

Yu Guangyuan's book *A Philosophical School is Rising in China* was published in 1996. When we read the book today, we can't help but to take a more inquisitive and critical stance. The "philosophical school" in the book's title was rooted in Engel's *Dialectics of Nature*, but in what condition, outside of Western modernity, would this rise of a technophile philosophical school take place? The question remains unsettled, though it only becomes even more intriguing given that, in today's China, a rising interest lies similarly in the speculative theories of technology and the acceptance of its role in the policy regarding future development.



In his political caricature *Journey to the West in Cartoons* (1945), Zhang Guangyu depicted a world in the hands of an almighty governor, a world miniaturised in a crystal ball, but embodying the entire globe.

As Boris Groys analyses, compared to Western Marxism whose emphasis is primarily on historical materialism, Chinese and Soviet Marxism tends to focus on dialectical materialism; in other words, humans are part of nature. This is perhaps why Yu Guangyuan decided to anchor his "philosophical school" in the concepts/theories in *Dialectics of Nature*. Marxism was no longer needed as the justification of class struggle, but that of an ideological shift of an emphasis on technology to increase productivity and efficient utilization/exploitation of nature.

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Feng Xiaoning's *The Ozone Layer Vanishes* is a film that represents Chinese people's collective memory of ecology in the 1990s

The book is interesting yet for another reason: it puts the readers in a position where it is natural to rethink the idea of naturalism. Yu imagines the earth as “both small and large”: the way we interact with nature is never one-fold. Nature as resource is limited so we must protect it, whereas at the same time, the technosphere surrounding the Earth is also part of nature – the man-made nature, and the potential of what this technosphere can achieve in relation to natural resource is unlimited. Thus, the Earth is given two dialectical images which do not conflict with one another, not how it's presented in this book at least. This, in my opinion, is where Yu Guangyuan's writing can be read as creative.



Charles & Ray Eames' video work *Powers of Ten* (1977), together with NASA's first photo of the global Earth taken in the space in 1966, expanded people's imagination of the world and could be seen as important moments in the aesthetic history.

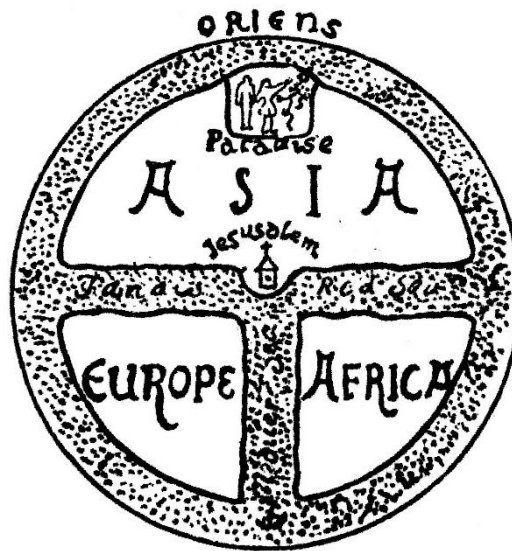
Interestingly, the sociologist Gabriele de Seta indicated that the article was logically inconsistent. At the beginning of the article, the author adopted a post-naturalist viewpoint regarding the Earth, so the Earth's image wasn't single. In later paragraphs, however, his advocacy for both protection and exploitation of the natural resources corresponded with the normative narrative of naturalism of the time.

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Wang Yijia: From Embodied Cognition to De-anthropocentric Experimentation

Sharing her thoughts on Benjamin Bratton, “The City Wears Us. Notes on the Scope of Distributed Sensing and Sensation”, 2017

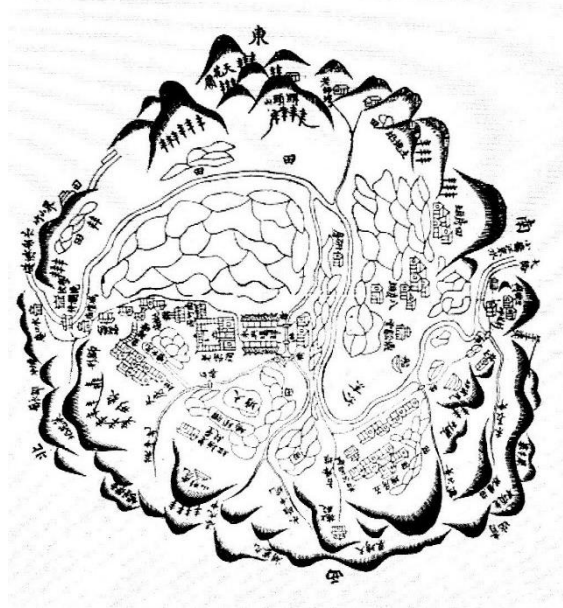
When it comes to imagining and defining what spatiality is, a widely acknowledged view is that human beings are confined to our bodily perceptions. As George Lakoff mentioned in his book *Metaphors We Live By*, humans’ concepts of space are always based on their bodily perception of the world, and abstract concepts are something that can only be comprehended in relation to bodily experiences: for example, when talking about time (abstract concept), people tend to describe it by means of distance (physical experience): when something happens earlier it feels further away, and when it’s later it feels closer.



An ecclesiastical imagination of the world in the Middle Ages: a man outlines the world with his own body as the center of the circle

Modern technology and Internet broke such confinements to a large extent. “Skins” made with artificial intelligence make it possible for us to perceive (or receive and translate data from) a much broader diversity of what exists on earth. Thus, people’s spatial perception can be radically changed. Bratton in “The City Wears Us” wrote: “What counts as a skin changes once the sensory capacities of a surface are made more animate,” and then he described a very creative scenario: when these apparels/skins are equipped with sensors, it effectively creates a data sphere that can be shared, and when these skins are connected via a shared data platform, the subjects that wear them can effectively perceive what other subjects on the same platform perceive. In this way, a subversive moment comes about: the way we are related to the space is fundamentally changed, which could challenge how we define what we (humans) are.

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Depiction of the world in a Chinese genealogy book found in Hunan province

In this article, Benjamin Bratton expressed his dissatisfaction with the current development of “Smart City”, reckoning that it is a system based on the all-knowing collection of big data to make civic administration more effective. Such is merely an innovation that is confined in the existing man-made order, which can only yield results restricted by the boundary of collective human knowledge. What the author advocates is a further “cacophony”, where technology interferes and embroils with nature in a more fundamental and profound approach. In this new imagined scenario, sources for data/information will be myriad and diverse beyond the confines of human knowledge and perception: ravens and beasts could all be wearing AI skins, and by then we may even need “affect theory for machines”.

In the last paragraph, he said: “Whether ultimately this garment cloaks urban ruins or a new rationality of wilderness is a matter of composition not prediction.” In response to the context of the previous paragraphs, what he questioned was in fact: whether the current AI is just another added layer to enforce the present human order, or could it contribute to the imagination of a new order? As each society has its own unique logic system, the new AI also needs to develop its own social form to replace the human governing structure. At this moment, it is necessary for us to rethink how we position what is often seen as the core of what sets us apart from machines, our contingency and individuality.

Zhao Yao: Deconstructing Human Subjectivity by Means of Information

Sharing his thoughts on Benjamin Bratton, “The City Wears Us. Notes on the Scope of Distributed Sensing and Sensation”, 2017

Today, conceptions of driverless automobile and wearable facility involve the adoption of many sensors that make it possible for machines to collect data and “perceive” the outside world. Bratton interprets these sensors as extension of “skin”. These sensors interact and communicate with each other. Bratton listed the components as such: “visual light cameras,

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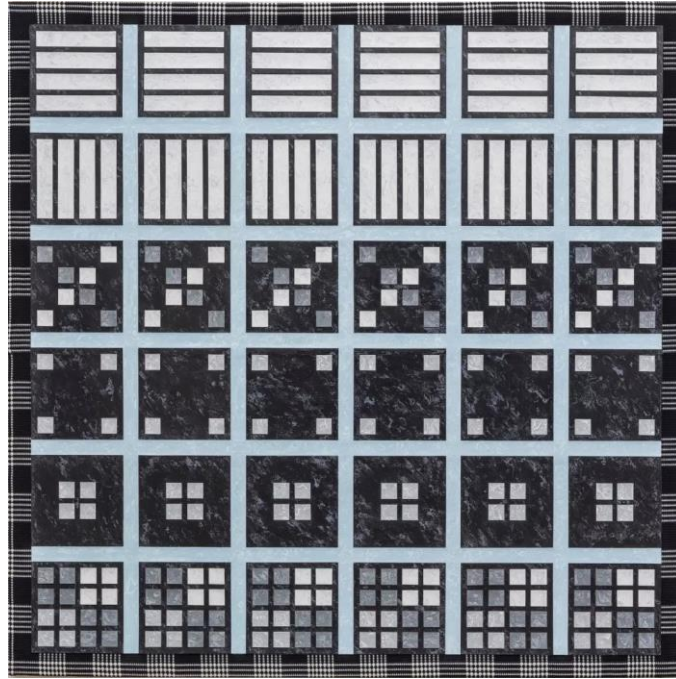
LiDAR range finding, short- and long-range RADAR, ultrasonic sensors on the wheels, global positioning satellite systems/geolocation aeriels, etc. Several systems overlap between sensing and interpretation, such as road sign and feature detection and interpretation algorithms, model maps of upcoming roads, and inter-car interaction behaviour algorithms”. The way machines understand the world goes directly from information to information, which proves to be a different perceptive functionality from what men usually adopt.



Squid skin contains small “pigment pockets” which changes colour according to its emotional reactions

In the article, Bratton mentions that squid skin can change its physical colour according to the environment. When in danger, for example, the colour of the skin would reflect in real-time how the animal feels. Such reaction to the change of outside information does not go through nerves in the brain; it is felt and reacted directly by the skin. Knowing this, it requires a new position to discern the “aesthetic” generated under such condition — the conventional human cognition is no longer sufficient to fully comprehend this new world with all its new information that doesn’t come from human perception. When AI makes everything “intelligent”, intelligence embodies another possibility to process information, out of any single being’s individual cognitive abilities.

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Zhao Yao, *A Painting of Thought I- 400B*, 200x200cm, 2016, acrylic on canvas

Zian Chen: “Zhao Yao has an ongoing series of paintings called “A Painting of Thought”. In the vernacular of painting, he introduces geometric shapes taken from puzzle games. These puzzles are meant to train the brain, you kind of become a computer terminal which receives information with your sight, which is then processed and made sense. Zhao Yao has an ongoing series of paintings called “A Painting of Thought”. In the vernacular of painting, he introduces geometric shapes taken from puzzle games. These puzzles are meant to train the brain, you kind of become a computer terminal which receives information with your sight, which is then processed and made sense.”

Zhao Yao: “Benjamin Bratton wrote, “information, in this sense, may be less the message itself than the measure of the space of possibility...” Through making art, I have been thinking about how our era is marked with information. In our art history and iconography trainings as students, we tended to see things as symbols. However, when we enter the era of information, we should concentrate more on what the object could bring us as information, and make sense of the object via the information it possesses. This requires a form or way of expression that transcends human subjectivity. Today, originality and subjectivity is in fact more absent than present. My artworks employ mostly existing forms, and they don’t need to create new functions. “A Painting of Thought” series is the reification of what comes out of the modernist education. Its information is not only its content, but anything about its form, material, and quality can be linked with the characteristics of the era.”

Adam Yang: Innate Logic of Artificial Intelligence

Sharing his thoughts on Benjamin Bratton, “The City Wears Us. Notes on the Scope of Distributed Sensing and Sensation”, 2017

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I regard Benjamin Bratton as a champion of transdisciplinary knowledge. He doesn't limit himself to a specific discipline, and instead he enlists himself to contribute to the most pressing issue and dynamic topic that often requires a transdisciplinary mindset. I am especially struck by one of the ideas that he raised in this article: he parallels the development of artificial intelligence to a spectrum of cognitive modes. The older system applied more of a deductive method. That is to say, humans consign a certain known pattern to the machine, so it could deduce according to this pattern. However, the possibilities that can be generated by artificial intelligence like this is very limited. Now people have machines do "deep learning", a more inductive method. In this method, humans do not tell machines what to do, instead the machines are allowed to come up with its own method to accomplish the task, resulting a great leap in the development of AI. As people can't get to know how AI actually manages to do it, the result is AI's "opacity". However, AI still derives from human logic.

In terms of deep learning, the input and output of data might seem neutral from a mechanic perspective, without any influence from human beings. However, Bratton indicated that, from a larger perspective, the data collected by human beings are never neutral and are based on our biased culture and society. In other words, machines are biased because the information we feed them is biased. Many controversial operations stem from this – for example, commercial enterprises and research institutions feed whatever data they can find to their machines, which can cause severe partial outcomes. Bratton thinks that coupling has taken place between the mechanic cognition and the human cognition, giving birth to a sort of synthetic cyborg. However, I would like to think that the two cognitions are not equal. Scholars such as Mark Hansen think that the current AI merely steals from the key element of human decision-making process, contingency, as opposed to a comprehensive spectrum of human intelligence. In this sense, AI is not the same as human intelligence. As such, there lies another big crisis for the AI intelligence industry, and deep learning also requires difficult reforms. If we want the machines to generate a spontaneous decision-making system, we will have to look for another way.

About Long March Project

Initiated in 1999 and begun in 2002, Long March Project is a multi-faceted research platform and a contemporary art organization continually evolving over time. Producing discourse while locating and conditioning the context it exists within, the project may be simultaneously considered a researcher of contemporary culture, an archive, an ideological workshop, a forum for the generation of discourse, a laboratory for visual display, and a project producer. Its core curatorial plan shapes its organizational form and activities, which serve as a public platform for mediation between different debates, constructing diverse participatory situations to guide varied forms of speculation, discussion, and artistic action.